

WHAT IS CLAIMED IS:

1                   1.       A metadata validation system for validating an object model, the  
2 system comprising:  
3                   a client device configured to receive user input and provide a user interface to  
4 a user;  
5                   a database for storing objects and metadata of the object model;  
6                   a configuration management module for creating a deployable collection of  
7 objects; and  
8                   a validation engine for validating metadata in the database, wherein said  
9 validation engine is configured to perform completeness validation on a validation subject in  
10 response to a user entered command to perform validation on the subject, to automatically  
11 perform correctness validation on a validation subject when the subject is created or updated,  
12 and to automatically perform completeness and correctness validation on a validation subject  
13 when requested by the configuration management module.

1                   2.       The system of claim 1, wherein a validation subject is an instance of  
2 one of an attribute, an association, an object and a collection of objects.

1                   3.       The system of claim 1, wherein a validation subject is a meta metadata  
2 object selected from the group consisting of a MetaAttribute, a MetaAssociation, a  
3 MetaAssociationEnd, a MetaClass and a MetaCollection.

1                   4.       The system of claim 1, wherein completeness validation includes the  
2 application of a completeness validation rule to the validation subject.

1                   5.       The system of claim 1, wherein correctness validation includes the  
2 application of a correctness validation rule to the validation subject.

1                   6.       The system of claim 1, wherein the validation subject is a deployable  
2 collection of objects from the database.

1                   7.       The system of claim 1, wherein the validation subject is an aggregated  
2 collection of objects from the database.

1                   8.       A computer-implemented method of validating metadata in an object  
2 model, the method comprising:

3 creating an instance of a meta metadata object in response to user input;  
4 automatically applying one or more correctness type validation rules to the  
5 object instance;  
6 if a user selects validation of the object instance, applying one or more  
7 completeness validation rules to the object instance; and  
8 automatically applying both the one or more correctness validation rules and  
9 the one or more completeness validation rules to the object instance prior to deployment of  
10 the object instance.

1 9. The method of claim 8, wherein the meta metadata object is one of an  
2 attribute, an association, an object and a collection of objects.

1 10. The method of claim 8, wherein the meta metadata object is an  
2 association and wherein the object instance to which a validation rule is applied includes the  
3 two objects associated by the association.

1 11. The method of claim 8, further including automatically applying the  
2 one or more correctness type validation rules to the instance if the instance is automatically  
3 updated or manually updated.

1 12. The method of claim 11, wherein the meta metadata object is one of an  
2 attribute and an object.

1 13. The method of claim 8, wherein the meta metadata object is one of an  
2 aggregated collection and a deployable collection.

1 14. A system for validating metadata in an object model, the system  
2 comprising:  
3 a database for storing objects and meta metadata objects of the object model;  
4 means for creating an instance of a meta metadata object in response to user  
5 input; and  
6 a validation means for automatically applying one or more correctness type  
7 validation rules to the object instance when the instance is created, for applying one or more  
8 completeness validation rules to the object instance if a user manually selects validation of  
9 the object instance, and for automatically applying both the one or more correctness

- 10 validation rules and the one or more completeness validation rules to the object instance prior
- 11 to deployment of the object instance.